AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
J	1 of 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0001	10-Dec-2003	W68MD9-3311-5303	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USA ENGINEER DISTRICT, SEATTLE ATTN: CENWS-CT 4735 EAST MARGINAL WAY SOUTH SEATTLE WA 98134-2329	W912DW	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912DW-04-R-0009
	X	9B. DATED (SEE ITEM 11) 02-Dec-2003
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [ ] is extended, [X] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Solicitation No. W912DW-04-R-0009
Amendment No. R0001

Title: FIRE/CRASH RESCUE STATION
PORTLAND AIR NATIONAL GUARD BASE
PORTLAND OREGON

SEE CONTINUATION PAGE

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 10-Dec-2003

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

Amendment No. R0001 to Solicitation No. W912DW-04-R-009, entitled "FIRE/CRASH RESCUE STATION , Portland Air National Guard Base, Portland, Oregon.

A. This amendment provides for the following changes: Reissue of Sections 01010 and 13850 in their entirety.

B. The attached revised specification sections supersede and replace the corresponding specification sections. Specification changes are generally identified, for convenience, by strikeout for deletions, and underlining of text for additions. All portions of the revised or new pages shall apply whether or not changes have been indicated.

C. PROPOSAL DUE DATE & TIME:
The Proposal due date and time remain unchanged: 05 January 2003, NLT 2:00 PM Local Time.

D. NOTICE TO OFFEROR'S:
Offerors must acknowledge receipt of this amendment by number and date on Standard Form 1442 block 19 submitted with proposal or by telegram.

E. All other terms and conditions of the solicitation remain unchanged.

Enclosures:

Revised Sections 01010 and 13850 in their entirety.

SECTION 01010

SECURITY REQUIREMENTS

****
SECTION 01010 IS REISSUED IN ITS ENTIRETY BY AMENDMENT 0001.
****

PART 1 GENERAL

1.1 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures:"

SD-01 Preconstruction Submittals

Construction Free Zone Work Plan; G

Access to Controlled Areas/Construction Free Zone; G

Entry Authority Lists; G

1.2 GENERAL REQUIREMENTS

1.2.1 Security requirements and procedures shall be coordinated with the 142nd Security Forces Squadron, Portland Air National Guard Base through the Contracting Officer. Activities of the Contractor and the Contractor's employees and subcontractors and their employees while on the base shall be conducted in accordance with base regulations, including those of the fire marshal, as well as security directives.

1.2.2 The Contractor is responsible for the security of all supplies and equipment associated with their work sites. If thefts occur they shall be reported to Security Forces immediately at 503-335-4752.

1.2.3 Contractor gate operation hours are 0600 - 1800 daily, Monday through Friday, excluding holidays. Work hours other than as specified above shall be coordinated with and approved by the Contracting Officer, at least **3 working days in advance.**

1.2.4 Daily entry onto and exit from the base may be delayed depending upon the Government security threat condition. Typical delays may range from 5 to 25 minutes, but could increase upwards to 2 hours or more on occasion. All Construction vehicles, deliveries and employees shall enter through either the Overend Gate. All vehicles are subject to search.

1.3 ENTRY/EXIT PROCEDURES

1.3.1 Contractor/delivery personnel will be subject to vehicle and personal search while entering and may be subject to search upon exiting the installation. An Entry Authorization List (EAL) (See template at Attachment B) provided by the contractor will control access to the installation.

1.3.2 The Contractor's team is required to receive a PANGB Contractor's Badge, in order to enter. There are 2 types of Badges. The first type of

badge is a photo badge for all individuals performing escort duties and superintendent duties. The second type of badges is the PANGB Contractor's Badge. All employees are required to wear one of these badges while on the installation. If personnel are unable to wear the badge due to safety concerns the Contractor shall identify those specific duties and the names of the individuals to Security Forces.

1.3.3 Upon arrival at the designated gate Contractor personnel vehicles will be searched. Contractor personnel shall provide a government issued picture ID. The gate sentry will compare the name to the EAL provided by the General Contractor against the name on the photo ID. If the name appears on the access list, the Gate Sentry will exchange the photo ID for a numbered Contractor's badge. If the name does not appear on the list, access will be denied.

1.4 IDENTIFICATION CREDENTIAL PROCEDURES PHOTO BADGE

1.4.1 The Contractor, superintendent and Contractor provided escorts shall apply for a photo badge by completing the Contractor Access Request Packet. This must be accomplished at least 21 days prior to issue. The request for escort requires a criminal history check. Information obtained in the background check will determine whether authorization will be given for escort privilege. Information obtained during the background check may also preclude authorized access to the installation. A non-photo badge may be issued while the background check is being conducted. The non-photo badge DOES NOT authorize escort privileges.

1.4.2 The completed application, with a legible copy of the applicant's government issued picture identification showing a date of birth, must be hand carried by the Prime Contractor's Superintendent (or other person as approved by the Contracting Officer's Representative (COR)) to the COR office (working hours 0730 to 1600, Monday through Friday). The COR will provide the requests to Security Forces. Upon completion of the check, 142 Security Forces will notify the COR of the status of each application. The COR may authorize the General Contractor to submit paper work directly to Security Forces. The authorization must be submitted in writing to the 142nd SFS/SFO. This authorization may be removed at anytime by the Security Forces or the COR.

1.5 IDENTIFICATION CREDENTIALS PROCEDURES CONTRACTOR BADGE

1.5.1 All Contractor and subcontractor personnel, except those not under direct control, such as concrete truck and material deliveries, shall obtain and fill out a Contractor Access Request Packet. Individuals being issued the PANGB Contractor badge must be identified by the Contractor one business day in advance. The completed application, with a legible copy of the applicant's government issued picture identification showing a date of birth, must be hand carried by the Prime Contractor's Superintendent (or other person as approved by the Contracting Officer's Representative (COR)) to the COR office (working hours 0730 to 1600, Monday through Friday). The COR will provide the requests to Security Forces. If authorized the Prime Contractor may take the requests directly to Security Forces.

1.5.2 After processing of the application, a Wants and Warrants check will be completed on the applicant. Upon completion of the check, 142 Security Forces will notify the COR of the status of each application that have any issues.

1.6 CONTROL AND ISSUANCE OF CONTRACTOR BADGE

1.6.1 The 142 Security Forces will assign a series of Contractor badges and passes with unique identification numbers to each worker. The Contractor is responsible for accounting, controlling, and disbursing these badges and passes to their workers. All workers receiving a badge and pass must complete the Contractors Access Request Packet. The Contractor must also sign indicating verification of the workers drivers license, current vehicle registration and current insurance card. The Contractor shall assign workers one of the uniquely numbered badges for the duration of the contract. The EAL shall identify the assignment of the badge number to the worker.

1.6.2 At the completion of the job, the Contractor shall return all badges to 142 Security Forces. In the event any badges are not recovered, the Contractor shall reimburse the government $27.50 per lost badge.

1.7 CONTROLLED AREA IDENTIFICATION & REQUIREMENTS

1.7.1 The flightline, taxiway, POL and specific other buildings are Controlled Security Areas. The flightline and taxiway are adjacent to a restricted area where "The Use of Deadly Force is Authorized". The Contractor shall establish a Construction Free Zone within areas that are identified as Controlled Security Areas. A Construction Free Zone is an area delineated by physical barriers or lines established within controlled security areas when construction projects and similar activities make it inappropriate or impractical to apply normal circulation controls. The Construction Free Zone shall be delineated with a Contractor provided and installed red rope placed on stanchions. Drawings attached to the plans indicate the area(s) to be designated as the Construction Free Zone. This drawing must be provided by the contractor.

1.7.2 The Government will provide guards and entry controllers to monitor access of Contractor personnel and work within the Construction Free Zone. Guards may operate from Government provided and installed movable guard shacks.

1.7.3 During construction on flightline buildings, the Contractor shall place a 6 foot high chainlink construction fence, 11 gauge with 7-foot posts, topped with single outriggers with three strands of barbed wire on the north side of the buildings to preclude any Contractor personnel from being able to gain access to the aircraft ramp.

1.8 CONSTRUCTION FREE ZONE WORK PLAN

1.8.1 The Contractor shall provide a Construction Free Zone Work Plan for Government approval depicting the Free Zone and delineating work areas, work crews, and the size of each crew. The plan shall be submitted to the Contracting Officer for subsequent Security Force approval. This Portland Air National Guard Base (PANGB) approved plan will be provided through the Contracting Officer to the Contractor. **This work plan shall be submitted at least twenty-one (21) days before work in the area(s) is scheduled to start.** The Contractor shall plan that Government escorts will not be available during this 21-day period.

1.8.2 The work areas shall be definitive showing their relationship to roadways, adjacent structures, and the Controlled area(s). The approved work plan shall be kept current. Construction shall be scheduled to proceed in a logical construction sequence and sufficient approved materials shall be on hand to complete entire segments of work as

scheduled. **In the plan it must identify procedures to inform employees of the requirements to stay within the Controlled Area/Construction Free Zone.**

1.9 ACCESS TO CONTROLLED AREAS/CONSTRUCTION FREE ZONE

1.9.1 The Contractor shall submit a separate Entry Authority List (EAL) of personnel including subcontractors for each Controlled Area(s) Construction Free Zone, to the COR. This list shall be provided in the format identified for the Construction Free Zone EAL. The initial submittal shall be with the Construction Free Zone Work Plan. The required information of new employees whose names were not provided on the initial list shall be provided at least one business day prior to the time the new employees needs access to PANGB. Each time a change (addition) is made the Contractor must provide a complete up to date alphabetized list within one business day following the employee's first day. For deletions the Contractor must provide the notification by the end of the workday by submitting page 1 of the Contractor Access Request Packet. If a worker attempts entry to the controlled area/construction free zone that is not on the access list or does not have a Contractors badge he/she will be escorted off the installation and will not be allowed to return for the remainder of the day.

1.9.2 Employees who have quit employment or who have been dismissed shall be identified by submittal of page 1 of the Contractor Access Request Packet to the COR. A new entry authority list must be provided within one business day after termination. Only those employees, whose names are on the access list, will be permitted entry into the controlled area/construction free zone.

1.9.3 A separate Construction Free Zone Vehicle Entry Authorization List (Attachment D) shall be submitted by the Contractor to the Contracting Officer a minimum of one business day prior to beginning of work within the Construction Free Zone. This list shall include the information required on the attached Construction Free Zone Vehicle Access template for vehicles which need to have access to the Construction Free Zones. The list must be updated as needed but not later than one business day following an addition or deletion. Additional vehicles requiring access to the controlled area/construction free zone must be identified in writing one business day in advance. Vehicles no longer requiring access must be deleted from the list within one business day.

1.10 DELIVERIES TO CONSTRUCTION SITES

1.10.1 The Contractor shall submit a letter to the COR listing all persons authorized to preannounce deliveries. This list shall include the authorized person's name, social security number, and date of birth. This letter shall include a callback phone number for verification and shall be resubmitted every 90 days.

1.10.2 Deliveries made to construction sites must be identified by submitting the Delivery Notification Form at least one business day in advance to the COR. The driver must also have a bill of lading identifying the installation address and job site location for the delivery. All deliveries will require an escort from the gate to the work site and back to the gate. Delivery vehicles failing to obtain an escort on the return trip to the gate will have the driver's access restricted for 2 business days. A second violation may result in the driver being barred from the site.

1.11 ESCORT REQUIREMENTS

1.11.1 The Contractor shall plan its work for any construction work on base to provide for a minimum number of escorts by localizing each segment of work. The Contractor shall provide sufficient escorts that have completed Contractor Access Request Packets and have received clearance from Security Forces to receive a photo escort badge. Requests for escort authority must be submitted 21 days in advance. The Contractor will be limited to a reasonable number of escorts as determined by Security Forces.

1.11.2 Generally, operators of delivery vehicles will not be badged. Upon entrance to the base and after vehicle search, the Contractor shall escort the delivery vehicle to the job site/storage yard. Upon their exiting the base, the Contractor shall again be responsible for providing an escort for the delivery vehicle.

1.11.3 Slip-forming Concrete Delivery: the Contractor shall identify concrete delivery truck operators in advance. Operators shall submit forms in accordance with the requirements to obtain a PANGB Contractors Badge (non-photo). A minimum of one business day prior to delivery of concrete for slip forming, the Contractor shall submit an Entry Authorization List for that specific event. The EAL shall be resubmitted for each subsequent event.

1.11.4 Military Taxiway Asphalt: the Contractor shall identify Asphalt delivery truck operators in advance. Operators shall submit forms in accordance with the requirements to obtain a PANGB Contractors Badge (non-photo). A minimum of one business day prior to delivery of asphalt, the Contractor shall submit an Entry Authorization List for that specific event. The EAL shall be resubmitted for each subsequent event.

1.11.5 Local implementation of Force Protection Conditions may require suspension of contractor operations. The 142 Fighter Wing will make this determination based on national and localized threat intelligence information. If a threat is determined relevant to the Portland Air National Guard Base and significant enough to warrant removal of contractor personnel, 142 SFS will implement procedures to remove contractors from the work site back to the contractor gate staging area or off base. Following this action the Threat Working Group will determine the immediate and long-range impacts to on-going and future contractor activity.

1.12 WORK AREA RESTRICTIONS DURING AIR FORCE INSPECTIONS, EXERCISES AND INVESTIGATIONS

1.12.1 PANGB is considered a Closed Installation. The flightline, taxiway, and specific other buildings or work sites are Controlled Security Areas. Contractor personnel may be required to leave any PANGB area(s) or stop working and relocate within the area during Air Force inspections, exercises, or investigations. For certain Air Force actions, the Contractor will be prohibited from entering specified areas. If personnel are already in the Controlled area(s), they may be allowed to relocate or may be required to exit the area(s) entirely. These actions may occur periodically throughout the year.

1.12.2 During certain actual exercises or investigations, Contractor personnel may be under increased surveillance, although they are not working near the area affected. If the Contractor personnel are involved in the investigation, these personnel, along with their supervisor, will come under the control of security forces. The remaining personnel may

continue with their work.

1.13 ENTRY AUTHORITY LISTS

1.13.1 To receive daily construction access to PANGB the Contractor shall submit a list of personnel, including subcontractors, who will work within the installation. The initial submittal shall be at least 7 days prior to the start of work. This list must include the information requested in the Entry Authorization List template (Attachment B). After the list has been submitted, the Contractor shall keep the list current. The name, address, and other information listed above of new employees whose names were not provided on the initial list shall be provided at least one business day prior to the time the new employees start work. Each time an addition is made the Contractor shall provide a new alphabetized list within one business day following the first day of work. Additions will be made using a notification sheet. Deletions to the list must be made by the end of the work day by submitting the notification sheet to the COR Employees who have terminated employment or who have been dismissed shall be identified and removed as soon as possible from the entry authority list but not later than 24 hours after termination. Only those employees, whose names are on the list, will be permitted entry on PANGB.

1.13.2 Each job site will maintain a copy of the EAL list showing authorized individuals at that site. The following lists need to be provided:

- EAL (Attachment B - One list for use at both gate and job site)
- EAL for Controlled Security Area/Construction Free Zone (Attachment C)
- Contractor notification sheet identifying additions to the lists. (Attachment A)
- Contractor notification sheets identifying terminated or dismissed employees. (Attachment A)
- Updates lists within one business day following first day of work.
- Deletions will be made by the end of the workday.
- Vehicle list of all vehicles requiring access to Controlled Security Areas/Construction Free Zones. (Attachment D)
- Delivery Notification Sheet
- Individuals authorized to submit new lists and notification sheets. This list must be updated a minimum of every 90 days or when changes to the authorization is made. Personnel authorized to submit new lists and notification sheets will be limited to the Contractor with overall responsibility or the superintendent with over all responsibility.

1.14 RESTRICTIONS

- Contractor personnel will be restricted to the project construction areas (Construction Free Zone), the Controlled area/construction free zones, or job sites.
- Contractor shall not stockpile equipment within 10 meters of interior or 25 meters of exterior Controlled Security Area perimeter fences.
- No equipment, containers, or building materials will be stored within 25 meters of the exterior of inhabited buildings.
- No materials or equipment will be stored within 100 feet of the perimeter of the restricted areas on the AFRC Ramp.
- Contractors will not park vehicles within 25 meters of inhabited buildings during Force Protection Condition Bravo.
- Unattended vehicles shall be rendered immobile by removing the keys or other suitable means.
- Vehicles found with keys will have the keys seized by security forces.

Keys that are seized will only be turned over to the owner of the vehicle as identified on the vehicle registration.

· Contractor vehicles cannot be left parked at the Contractor Gate. If employees cannot drive on base for any reason such as suspended license, lack of insurance, lack of registration, the Contractor shall relocate those vehicles off base. There is no space on base to receive unlicensed vehicles.

· No WEAPONS of any kind are allowed on the installation.

· No explosives of any kind are allowed on the installation, with the exception of standard devices used to power construction tools. These devices must be identified by the Contractor at the time of vehicle search.

· If "ramset" tools are to be used the Contractor shall identify the date, time and location of use on the day the tools are intended to be used.

· Contractor personnel shall obey all direction given by security forces, failure to do so may result in base debarment.

· No photos are authorized to be taken without the expressed permission of the installation commander.

1.15 LIGHTING

Existing lighting for security purposes shall be functional at all times during the hours of darkness. The Contractor may establish their own perimeter lights within the existing Construction Free Zone, or other work site in the event night time work will occur. Deficiencies in security lighting or power shall be repaired or replaced prior to the end of the workday. Lighting on the ramp areas shall be approved by the COR to ensure there is no safety of flight issues with the Port of Portland.

1.16 UTILITY OUTAGES

Power outages affecting intrusion detection systems shall be arranged a minimum of 3 business days in advance with Security Forces through the Contracting Officer. Intrusion detection systems will be operational prior to the Contractor leaving for the day.

PART 2 NOT USED

PART 3 NOT USED

-- End of Section --

CONTRACTOR ACCESS REQUEST PACKET

☐ **ADVANCE NOTIFICATION**

A COPY OF - PAGE ONE ONLY - OF THIS PACKET MAY BE SUBMITTED AS ADVANCE NOTIFICATION OF A CONTRACTORS' NEED TO ACCESS THE BASE. THIS SINGLE PAGE NOTIFICATION IS VALID FOR EMPLOYEES' FIRST DAY OF WORK ONLY. If the individual will require access for additional days, the COR, General Contractor or Authorized Base Personnel must submit a complete Contractor Access Request Packet and a photocopy of Drivers' License or other government issued picture ID and add the individual to the EAL.

DELETE EMPLOYEE ☐ **ACCESS NO LONGER REQUIRED**

- - - - - - - - - EMPLOYEE INFORMATION - *Type or Print Clearly* - - - - - - - - -

Proper Date Format Required (DDMMMYY) i.e. 31OCT03

LAST NAME	FIRST NAME	M.I.	HEIGHT	WEIGHT	Date of Birth (DDMMMYY)

Home Phone	Home Address City State Zip	Hair Color	Eye Color	Social Security # DL / Issuing State

Company Name	Company Address City State Zip	Company Phone Number

TYPE AND LOCATION (Bldg #) OF WORK BEING PERFORMED *(REQUIRED)*

BADGE NUMBER ASSIGNMENT NOTIFICATION

(Submitted by COR/General Contractor to 142SFS Pass & Registration Office)

Company # - Badge # Issued:

_ _ _ _ - _ _ _ _ _ _

Badge Validation Period
Proper Date Format Required (DDMMMYY) i.e. 10OCT03

From To

Type of Identification Issued

☐ **NON-ESCORT CONTRACTOR BADGE (No Picture)**

☐ **ESCORT CONTRACTOR** BADGE **(PICTURE ID)**

(If needed, a non-escort badge may be issued in the interim – until a Background Check has been completed with favorable results)

AUTHORIZED REQUESTOR includes the COR, General Contractor or Authorized PANG Base Personnel

REQUESTOR MUST HAVE AUTHORIZATION LETTER ON FILE @ 142SFS PASS & REGISTRATION OFFICE

Name of Authorized Requestor *(Typed):*	Signature of Authorized Requester:	Phone #	Date (DDMMMYY)

Remainder of Page for 142 SFS Office Use Only

Date Received By Pass & Registration:

☐ **Page 1 of 4**
☐ **Page 2 0f 4**
☐ **Page 3 of 4**
☐ **Page 4 of 4**
☐ **Copy of Picture ID**

Records Check Completed

☐ Background
☐ Wants & Warrants
☐ SSN Verification

☐ Approved
☐ Not Approved

Comments:

SIGNATURE: _____ DATE: _____

Contractor Advisory Governing Conduct While Working at the Portland Air Base

_____	_____	#'s Must Match	_____
Print Employee Name	**Badge # Issued**		**Pass # Issued**

1. **Base Pass Responsibility/Access:** Access will not be allowed unless the contractor employee has a valid PANGB Contractor Badge and vehicle pass.

It is the responsibility of the General Contractor to ensure that all persons issued a vehicle pass have a valid Driver License, Registration, and Insurance

Entry and exit from the installation will be through the **Overend Gate only**.

Contractors must be issued a badge PRIOR to entering the Base.

Traffic Rules and Regulations **will be** observed at all times. This installation enforces all applicable Oregon Revised Statutes.

Absolutely **No Weapons** of any kind are allowed on the installation. Persons found attempting to bring a weapon onto the installation are subject to immediate apprehension.

No alcohol or drugs are allowed on the installation.

Absolutely no PHOTOS of any kind ore authorized to be taken without the expressed permission of the installation commander.

Entry onto the installation constitutes consent to a warrantless search of yourself, your vehicle, and any property under your control.

2. **Contractor ID Badges:** These badges are the property of the Portland Air Base, and are subject to revocation at any time.

The badge will be worn above the waist in a visible location, at all times when working on the installation.

Upon the expiration of the contract, or the badge, it will be immediately returned to the COR, General Contractor or Authorized PANG Base Personnel to be returned to the Pass & Registration Office. Failure to do so will be treated as Theft of Government Property and appropriate measures instituted.

The badge is valid for use **only** on this installation. It is not valid as ID at any other location or installation. Misuse of the badge will result in barment from the installation.

In the event the badge is lost or stolen, it must be **immediately** reported to the 142nd SFS for investigation. A new badge may not be issued until and investigation by the 142nd Security Forces Squadron is complete.

If an employee is applying for unescorted access privileges, or escort privileges, a criminal history check will be performed prior to granting any privileges.

If a contractor employee is granted escort privilege, the following responsibilities attach:

- The escort will be with the escorted individual at all times. **No exceptions.**
- When Overend Gate personnel contact an authorized Contractor Escort, that individual will **respond immediately** to the Gate. If the Escort has not arrived within 10 minutes, the person awaiting entry will be turned away. **No exceptions**.

3. **Controlled and Restricted Areas:** Under no circumstances will a contractor employee enter a Controlled Area or Restricted Area, unless escorted by a PANGB employee with escort privilege for that area. **No Exceptions**.

Any employee found in an area without proper authorization or escort is subject to immediate apprehension by the 142 SFS. It is of utmost importance to be aware that Deadly Force is authorized for the protection of resources vital to National Security.

4. **Free Zones:** A Free Zone is an area established within a Controlled or Restricted Area by use of stanchions/ropes/barriers, etc. which extend into the area for contract work.

It is very important that the contractor employee does not go beyond the boundaries of the Free Zone, when working. Doing so will result in immediate apprehension and possible loss of Contractor badge.

5. Miscellaneous: **Contractor employees will produce their badge for identification at any time upon the demand of any 142 SFS member or other competent authority.**

All Contractor employees will follow the orders/directives of any 142 SFS Member when challenged. This compliance will be immediate, and without question**. The use of Deadly Force is authorized in the protection of this installation and any disobedience of directions or commands could be interpreted as a hostile act toward the SFS member, or the assets.**

This form will be signed, dated, and returned to 142 SFS Pass & Registration Office.

EMPLOYEE: My signature indicates I have read this document and have been briefed by the General Contractor regarding security procedures, and will abide by the policies and procedures.

_____ _____
Printed Name of employee **Date**

_____
Signature of employee

COR, GENERAL CONTRACTOR, OR AUTHORIZED PANG BASE PERSONNEL: My signature indicates that I have briefed the above employee regarding security procedures identified on this form. I have also verified proof of current vehicle registration, insurance and operators license.

_____ _____
Printed name of COR, General Contractor or Authorized PANG Base Personnel Date

_____
Signature of COR, General Contractor or Authorized PANG Base Personnel

A copy of driver's license or other government issued picture identification is required to be attached. ***(Application not valid without picture ID attached.)***

COR, General Contractor or Authorized PANG Base Personnel:
Complete This Section <u>ONLY WHEN ESCORT PRIVILEGES are REQUESTED</u>

REQUEST FOR ESCORT PRIVILEGES

EXAMPLES OF PERSONS WHO MAY BE CONSIDERED FOR AUTHORIZATION OF UN-ESCORTED ENTRY ONTO PANG BASE:
Construction Project Superintendents (Manager) (and up to two Lead Workers per jobsite)
Long Term Contractors i.e. DSC, ACS-GSG, PHC, Raytheon, etc
Long Term Vendors/Delivery/Service Personnel **where it is always the same person coming out to the Base i.e. IKON Copier Service and Aramark Rag/Rug Delivery**

AUTHORIZATION FOR CRIMINAL HISTORY CHECK

TO WHOM IT MAY CONCERN:

I hereby authorize and direct you, your organization, its officers, agents, assigns and employees to release to the Portland Air National Guard Security Forces any and all information obtained or developed through their investigation.

I hereby authorize and direct Portland Air National Guard Security Forces, its officers, agents, assigns and employees to obtain any and all information regarding my criminal history to include but not limited to a Law Enforcement Data Systems (LEDS) check. I understand that a conviction of a misdemeanor or felony crime will disqualify me for any escort privileges.

I hereby exonerate, release and discharge you, your organization, its officers, agents, assigns and employees from any liability or damages, whether in law or in equity, now and in the future, for complying with this request and for furnishing the information requested by the Portland Air National Guard security Forces.

I specifically waive any rights I may have to review or inspect any and all of the information developed in the criminal history check. You may retain a copy of this form for your files. **SIGN THIS FORM ONLY IF REQUESTING ESCORT PRIVILEGES**

Signature _____ Date _____ Signature of Witness _____ Date _____

<u>NOTICE</u>

Incomplete or incorrectly completed application packets are not valid and will not be accepted.
Please review entire packet before submitting.
Check that:

- ☐ ***Verify that all blocks are properly filled out***
- ☐ ***Verify that the proper date format was used for the DATE OF BIRTH and the BADGE VALIDATION PERIOD. i.e. 31OCT03, or 16SEP03***
- ☐ ***Ensure that all entries are printed/typed and easily readable***
- ☐ ***Verify that authorized signatures are in place***
- ☐ ***Verify that the packet being submitted contains 4 pages plus a copy of the Drivers' License or other government issued picture identification***

After submitting complete packet to 142SFS Pass & Registration:

- ☐ ***Add individual to Entry Authority List (EAL) and e-mail it to the required 142SFS Staff Members***

General Contractor:
name
Superintendent:
name
Phone: (xxx) xxx-xxxx

Date: DDMMYY
Supercedes EAL Dated: DDMMYY

Entry Authorization List:

Badge Number	Last Name	First Name	MI	Date of Birth DDMMMYY	Drivers License / ID Card Number & State	Job Site	Sub Contractor	Supervisor	Access Start Date DDMMMYY	Valid Thru DDMMMY

R0001

General Contractor:
name
Superintendent:
name
Phone: (xxx) xxx-xxxx

Date: DDMMYY
Supercedes EAL Dated: DDMMYY

Personnel Entry Authorization List (EAL)
Construction Free Zone

Badge Number	Last Name	First Name	MI	Date of Birth DDMMMYY	Drivers License / ID Card Number & State	Job Site	Sub Contractor	Supervisor	Access Start Date DDMMMYY	Valid Thru DDMMMY

R0001

General Contractor:
name
Superintendent:
name
Phone: (xxx) xxx-xxxx

Date: DDMMYY
Supercedes EAL Dated: DDMMYY

Vehicle Entry Authorization List (EAL)
Construction Free Zone

Vehicle Pass Number	Vehicle Make	Vehicle Model	Company Name	Vehicle License Plate Number and State	Job Site	Supervisor	Access Start Date DDMMMYY	Valid Thru DDMMMY

R0001

SECTION 13850

FIRE DETECTION AND ALARM SYSTEM

****
THIS SECTION IS REVISED IN ITS ENTIRETY BY AMENDMENT 0001.
****

PART 1 GENERAL

1.1 INTRODUCTION

The Air National Guard Fire Protection policy is based on the principals of developing an integrated system of balanced protection, these selected features and systems are carefully engineered to reinforce one another and to cover for one another in case of the failure of any one system. The process of achieving that integration, balance and redundancy to attain fire safety objectives is the essence of fire protection engineering, including codes and standards. ANG fire protection systems must be designed for maximum reliability, accessibility and maintainability.

Active fire detection and protection systems include automatic detection and notification systems, which tend to activate first, followed by automatic suppression systems, such as sprinklers and/or monitors.

Passive fire protection systems are designed to confine fire and smoke in zones and provide the automatic systems with a manageable fire to act on. Special attention is to be given to the spaces through which occupants will move to safety and the protection of the building's structural integrity.

1.2 APPLICABLE PUBLICATIONS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. All publications shall be referred to in their latest edition, including any revisions thereof.

ELECTRONIC INDUSTRIES ASSOCIATION (EIA)

EIA ANSI/EIA/TIA-222-E	(1991, R 1996) Steel Antenna Tower and Antenna Supporting Structures

AIR NATIONAL GUARD (ANG) ENGINEERING TECHNICAL LETTER (ETL)

ANG-ETL 01-01	(Jan 2003) Engineering Technical Letter (ETL), Section-15, for Fire Protection

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI S3.41	(1990 R 1996) Audible Emergency Evacuation Signals

FEDERAL STANDARDS (FED-STD)

FED-STD-595	(Rev. B) Colors

FACTORY MUTUAL ENGINEERING AND RESEARCH CORPORATION (FM)

FM P7825a	(1999) Approval Guide

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC. (IEEE)

IEEE C62.41	(1991 R 1995)Surge Voltages in Low-Voltage AC Power Circuits

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA ICS 6	(1993) Enclosures for Industrial Control and Systems

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2002) National Electrical Code
NFPA 72	(2002) National Fire Alarm Code
NFPA 80	(1999) Standard for Fire Doors and Fire Windows
NFPA 90A	(R 2003) Installation of Air Conditioning and Ventilating Systems
NFPA 90B	(R 2002) Standard For The Installation Of Warm Air Heating And Air- Conditioning Systems
NFPA 101	(2003) Life Safety Code
NFPA 204	(2002) Standard for Smoke and Heat Venting
NFPA 1221	(2002) Installation Maintenance and Use of Public Fire Service Communication Systems

UNDERWRITERS LABORATORIES, INC. (UL)

UL FPED	(2002) Fire Protection Equipment Directory
UL ECMD	(2002) Electrical Construction Materials Director
UL 38	(R 2001) Manual Signaling Boxes For Fire Alarm Systems
UL 268	(2003) Smoke Detectors For Fire Alarm Signaling Systems
UL 268A	(2003) Smoke Detectors For Duct Application
UL 521	(1999) Heat Detectors For Fire Protective Signaling Systems
UL 864	(R 2003) Control Units And Accessories For Fire Alarm Systems

1.3 SUBMITTALS

SD-02 Fire Protection Drawings

Provide separate fire protection (FP-__) drawings in the as-built plan sets. The minimum design drawing requirements for detection systems are as follows: occupancy hazard classifications, graphically depicted locations of all fire rated walls with rating indicated and locations of all devices on a dedicated floor plan and location of fire alarm control panel and annunciator panel. Also show the suggested routing for all fire system conduit. In addition, provide a riser diagram that clearly defines the individual zones and devices as well as clearly showing all connections "by others".

SD-02 Shop Drawings

Submit shop drawings indicating the following:

1. Layout drawings of the entire system on a floor plan, showing location of all fire alarm equipment and devices.

2. Wiring diagrams showing points of connection and terminals to be used.

3. Interior wiring diagrams of each major system component.

4. Conduit runs, J-Boxes.

5. Riser Diagram.

SD-03 Manufacturer's Data

Data which describe more than one type of item shall be clearly marked to indicate which type the Contractor intends to provide. Partial submittals will not be accepted. Submit data for the following:

1. Fire Alarm Control Panel/Transceiver in each configuration required by this specification.

2. Antennas and cables

3. Power supplies, including batteries

4. Lightning protection devices

5. Audible/visual devices of each type provided

6. Initiating devices of each type provided

7. Wire and cables for fire alarm system

SD-O4 Design Data

Calculations

Substantiate battery capacity, supervisory and alarm power requirements for:

1. Fire alarm control panel/radio alarm transceivers

2. Supplementary power supplies or devices

3. Antenna/Coax Voltage Standing Wave Ratio (VSWR).

4. Operations and Maintenance Manuals (per A -H as listed below)

a. Specifications shall be very comprehensive regarding requirements for Fire Protection Systems Operations and Maintenance Manuals. Manuals shall be required to include original data on all materials, systems, components, equipment and warranties provided. Manuals shall include approved shop drawings and other as-built information. Manuals shall be professionally prepared, including printed spine and cover with full table of contents and tabbed indexing. Full size sheets, as required, shall be folded into special holding pockets. All manual data shall be required to be original copy. Faxed, hand written or illegible material is not acceptable. Typically, manuals should be prepared in three ring binders for ease of document addition or removal.

b. O&M manuals shall be required to be completed, submitted and approved by no later than at the 75% construction complete stage. Three copies of final manuals are required. One copy is for Base Engineering to file, one copy is for fire department training and the other copy will be located in the O&M manual lock box, located in each mechanical room.

c. Manuals will be required to include, but not be limited to: Include full instructions on servicing and maintenance requirements. - Include operating instructions including start up, emergency shut down and start up, seasonal servicing and start up, etc.

d. Include owner's manuals for each item of equipment.

e. Include all equipment wiring diagrams

f. Include all piping and wiring systems diagrams and operational diagrams

g. Include full parts lists and exploded schematic diagrams

h. Include full warranty information

SD-05 Approvals and Certifications

Submit the following:

1. Evidence of current UL listing or FM approvals.

2. Evidence of FCC type Acceptance.

3. Name(s) of personnel who will supervise installation and testing of the system, and a copy of their Fire Alarm installation certification.

4. Name of Monaco Factory Representative who will provide instruction to government personnel, and the manufacturer's certification of the qualifications of the named individual(s). This information shall be provided to the Base Fire Chief and COR prior to notice to proceed.

1.4 QUALIFICATIONS OF FIRE PROTECTION ENGINEER

All design projects, which involve or impact, fire detection for ANG facilities, including renovation, repair, maintenance and new construction require the designer (A-E or in-house) to have, on staff or under contract, a qualified and experienced Fire Protection Engineer (FPE). It is the FPE's responsibility to develop the specific requirements of the fire protection design and to seal that portion of the design. For the purpose of meeting qualification requirements, a qualified FPE is defined as an individual meeting one of the following conditions:

1. Bachelor of Science or Master of Science degree in Fire Protection Engineering from an accredited university, plus a minimum of 5 years' work experience in Fire Protection Engineering.

2. Professional Engineer (PE) registration by examination, National Council of Examiners for Engineering and Surveys (NCEE) Fire Protection Engineering written examination.

3. Qualification as a GS/GM 804-series FPE.

4. PE registration in a related discipline with a minimum of 5 years' work experience in Fire Protection Engineering.

1.5 QUALIFICATIONS OF INSTALLER

Prior to commencing work, the Contractor shall submit data to the Contracting Officer, which verifies the installer is certified at the approrate level to install fire alarm systems. The installer shall be UL listed under category UUJS of the UL Fire Protection Equipment Directory.

1.6 MANUFACTURERS' REPRESENTATIVE

Provide the services of a Monaco manufacturers representative, experienced in the installation and operation of the type of system being provided, to supervise and provide record of any discrepancies identified during the final testing.

1.7 CONTINUITY OF PROTECTION

During the installation of this system, there shall be no loss of function of the existing base fire alarm system, or of the local building alarm systems connected thereto. Transfer of local alarm system connections from the existing base alarm system shall not result in loss of alarm transmitting or receiving capability. Temporary interruption of individual building alarm connections, not to exceed 8 hour duration, will be permitted at the discretion of the Base Fire Chief. Written notice shall be provided to the Base Fire Chief 48 hours prior to temporary interruption; execution of the temporary interruption is subsrquent to Base Fire Chief approval.

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS

The fire alarm panel shall be a Monaco M-2 Class A Non-Addressable unit. Materials and equipment shall be first grade, standard, current products of a single manufacturer and shall be suitable for the performance of their

separate functions, and shall interface properly with the Monaco M-2 panel. Equipment added to an existing system shall function in the same manner as similar components of the existing system. Installed system shall meet the installation and operational requirements of NFPA 72 except as modified or annotated herein. When manufactured as a standard product, the Monaco M-2 Class A Non-Addressable fire alarm control unit, power supply and radio transceiver shall be provided as a single integrated unit in one enclosure. The fire alarm control panel/transceiver shall comply with the applicable requirements of UL 864. The radio transmitter and receiver shall be FCC type accepted and radio receivers shall meet the applicable requirements of the FCC rules and regulations, Part 15, to inlude narrow band.

2.2 SYSTEM DESIGN

All detection and alarm systems shall be of the 4-wire supervised type (Class A). The control panel shall be a complete, supervised Monaco M-2 Class A Non-Addressable fire alarm control panel with an integral radio alarm transceiver, compatible with the existing Monaco D-700 base fire alarm receiving system located in buildings 290 Base Fire Station and 265 Base Command Post. The system shall also provide radio based remote system reporting to the base central system and a secondary central receiver. Match existing standard for construction of new facilities with the existing base system. All facility fire systems must also transmit appropriate signals to the responding (host or other) fire department, which in most cases is the ANG fire station. Notwithstanding any other requirements herein, no other equipment will be acceptable. Base central automatic fire alarm receiving and reporting systems are required and provide for the transmission/receiving of fire, emergency (eyewash station, POL, VMF or Fuel Cell fuel leak detection, etc.), trouble, tamper, Knox box, HVAC duct detector, system restore signals, manual pull station activation, suppression system activation, flow alarm, HEF system activation and other information from all base detection, alarm and suppression systems. Reporting shall report all information for each system by device where applicable, by zone and by system. A general fire or trouble signal is not an acceptable minimum. The system shall also report all information to the facility local graphic annunciator, which is to be a recessed panel type (Monaco, part Number 022-001-00) located internally, near the primary facility entrance. All new systems shall be compatible with existing base systems, as to brand and models of panels and transmission system. All new systems shall be capable of reporting properly to the base central systems. All facility fire system components shall be complete and shall be of the same manufacturer. Systems shall include full identification. All junction, terminal and pulling boxes and covers shall be painted the color red and shall be identified with engraved labels by the zone and circuit that it contains. All junction boxes and similar units shall be painted the color red. All detection and terminal devices shall have engraved plastic or metallic alphanumeric identification, which shall be keyed to the posted operations and maintenance instructions. All system valves shall have tamper switches provided and integrated into the fire alarm system as a supervisory trouble.

2.3 INSTALLATION WIRING

Wiring shall be THHN or TFFN stranded with crimp on terminal ends affixed. All terminal ends shall be clearly marked and numbered as to appropriate terminal and device. All wiring shall be color-coded and fully identified and standard throughout the facility. Use of multi-conductor twisted pair or similar wiring is not permitted. The use of wire nuts in fire protection systems is prohibited. Conduit, raceway and wiring shall be in accordance

with the requirements of NFPA 70, NFPA 72, NEC-Article 760 requirements for Electrical specifications, and requirements of the Electrical Section of this specification. Wire for 120 volt circuits shall be No. 12 AWG, type THHN/THWN minimum. Initiating device wiring shall be 16 AWG, type TFFN, minimum. Notification appliance circuit wiring shall be 14 AWG, type THHN/THWN minimum. Wherever possible, wiring from the fire alarm panel shall be continuous to each device, with no breaks in the wire run. Where junctions cannot be avoided, all wires shall be terminated on screw type terminal strips mounted in terminal boxes or cabinets. All such terminal boxes shall be clearly shown on the as-built conduit plan and all wiring within the boxes shall be shown on the as-built wiring diagrams. All J-box covers shall be painted red. All wiring shall be idenified with spectifice color coding for indicating, initiating and auxiliary out-put circuits. No wrap around self sticking markers or labels will be used for marking cable. All wiring used shall be single conductor. Multiconductor cables shall not be allowed. Any wire size listed smaller than 16 AWG shall not be allowed for fire alarm installation.

2.4 GROUNDING

Non current carrying metallic parts associated with new fire alarm equipment shall have maximum resistance to solid "earth" ground not to exceed the following values:

1. Antennas 10 ohms

2. Fire Alarm Control Panel 10 ohms

3. Radio Alarm Transceiver 10 ohms

2.5 FIRE ALARM CONTROL PANEL

The control panel shall be a complete, microprocessor controlled supervised Monaco M-2 Class A Non-Addressable fire alarm control panel, with two expansion back planes, with an integral radio alarm transceiver compatible with the base fire alarm receiving system. At least 4 fully operational spare zones shall be provided. The system shall be activated into alarm mode by the actuation of any alarm initiating device. The system shall remain in the alarm mode until the initiating device is reset and the fire alarm control panel is manually restored to the normal operating mode.The fire alarm control panel shall provide supervision for its inititating device circuits and electrical supervision of its indicating appliance circuits in accordance with NFPA 72. Filtered, regulated power shall be supplied for initiating and notification circuit devices. The control panel and all control equipment shall be narrow band compliant.

2.6 OPERATIONAL FEATURES

The system shall have the following operational features:

a. Electrical supervision of alarm initiation circuits, alarm notification circuits, and auxiliary output circuits for open, short, or ground fault conditions.

b. Electrical supervision of the primary AC power supply, emergency battery back-up power supply, battery charger voltage, and all fusing devices.

c. Electrical supervision of expansion module connections.

d. Electrical supervision of the transmitter interrupt and disconnect circuitry.

e. A trouble audible tone and trouble LED (light emitting diode), which activate when any supervised circuit is compromised. The trouble condition shall be further identified by a plain English LCD display. A trouble-silencing switch shall be provided which will silence the trouble buzzer but not extinguish the trouble LED or remove the trouble condition from the display. After the fault is corrected, the system shall automatically return to normal operating condition.

f. An evacuation alarm-silencing switch, which will turn off the alarm notification devices, designated as silence-able. Operation of the alarm-silencing switch will not affect the alarm indicating LED or display or the operation of the radio transceiver. This switch shall be arranged so that activation of a subsequent alarm on an unalarmed zone shall cause the evacuation alarm signaling devices to reactivate.

g. Switches for testing the indicating LEDs and trouble buzzer and for performing drill tests.

h. A transmitter disconnect function to allow testing and maintenance of the system without activating the transmitter.

i. On-board and remote (PC/terminal) programming capability which allows entry of zone identification, description, and type, operating parameters and all other required programming to provide a complete system as described herein and on the drawings.

j. Storage of the programmed configuration in nonvolatile memory. Simultaneous or subsequent actuation of any individual messages (from zones not initially in alarm), including those actuated during "off air" periods, shall not result in the loss of any messages.

k. A radio transmitter and receiver to allow an interrogation/reply technique in which the transceivers are interrogated at regular time intervals automatically, as well as manually by the operator from the central supervising radio equipment, and replies are returned by the transceivers indicating control panel/transceiver status. Transceivers shall be frequency programmable, narrowband, operable within a 12.5 kHz channel and shall operate on a frequency of 138.925 MHz. Transceivers shall be fully compatible with the existing base radio receiving system. Transceiver power output shall be a minimum of four watts or as required for reliable reception over long distances.

l. Monitoring circuitry to detect and shut down a continuously keyed transmitter.

m. Zones for alarm initiating circuits shall be arranged as indicated on the contract drawings.

n. Tamper switch that sends a tamper alarm when the cabinet is open.

o. The facility fire alarm system graphic annunciator shall be installed at a location determined by the host base fire department or other designated authority having jurisdiction. Typical location is interior, in the main facility entrance vestibule or hallway. The annunciator panel shall be constructed with engraved phenolic or metal

material, shall be recessed and shall graphically depict the facility floor plan with all zones and system information.

p. Emergency eyewash and shower stations shall be connected to the fire alarm system and shall report as a separate zone. These stations shall report as fire (or medical emergency if possible) and not as a trouble alarm.

q. All system valves shall have tamper switches provided and integrated into the fire alarm system as a supervisory trouble.

r. Knox Box (Outside Key Box) shall be connected to the fire alarm system and shall report as a separate zone. These stations shall report as fire and not as a trouble alarm.

2.7 ALARM FUNCTIONS

An alarm condition on a zone circuit shall automatically initiate the following functions:

a. Transmission of an alarm signal to the base fire alarm receiving system identifying the BT-2 address, building number, name and zone description.

b. Lighting of an alarm indicating LED and activation of a plain English display identifying the activated zone.

c. Continuous activation of the alarm notification appliances throughout the building and activation of any associated outputs as identified by system programming.

2.8 PRIMARY POWER

Operating power shall be 120 Volt, Ac, 60 Hz provided from a single dedicated branch circuit via a single pole, 20 amp lockable circuit breaker. The circuit shall be identified by a red nameplate with the words "FIRE ALARM CIRCUIT CONTROL." Upon loss of ac power or during a brownout condition, the fire alarm control panel/transceiver shall automatically and instantaneously switch to standby battery power without loss of any alarm signals and without causing transmission of a false alarm. Loss of ac power shall not prevent transmission of a signal to the fire alarm receiving system upon operation of any initiating circuit. Loss of ac power shall also activate a trouble indication and cause an ac failure message to be transmitted if ac power is not restored within one minute. Upon restoration of ac power, transfer back to ac operation shall be automatic. Power supply filtering shall prevent false message transmissions caused by transient electrical disturbances.

2.9 BATTERY BACK-UP POWER

Fire system battery systems shall be of the sealed gel-cell maintenance free type. Batteries shall be located upright, in the fire alarm panel and not in separate panels. Battery back-up power, fire system batteries shall be rechargeable. The batteries shall have ample capacity, with primary power disconnected, to operate the fire alarm system/transceiver for a minimum period of 48 hours in the event of a power outage. Following this period of battery operation, the batteries shall retain sufficient capacity to operate the system in alarm mode for 10 minutes and transmit an alarm to the central receiving system during this time.

2.10 BATTERY CHARGER

The battery charger shall be integral to the M-2 fire alarm control panel and shall be completely automatic, capable of recharging the batteries from full discharge, to full charge within 48 hours.

2.11 EQUIPMENT

Fire Alarm Control Panel/Transceiver shall comply with the applicable requirements of UL 864. The radio transmitter and receiver shall be Monaco M-2 Class A Non-Addressable unit, FCC type accepted and radio receivers shall meet the applicable requirements of the FCC rules and regulations, part 15.The fire alarm control panel/transceiver shall be modular, installed in a surface-mounted corrosion-resistant metal cabinet with hinged door and cylinder lock. Provisions shall be made for conduit (minimum 3/4 inch I.D.) Entry and attachment at no less than two places on the housing. All indicators and switches shall be clearly identified. LED indicators shall be provided for AC POWER, BATTERY, FAULT, TRANSMIT, RECEIVE, CARRIER DETECT, TRANSMITTER DISCONNECT, ALARM and TROUBLE. In addition, a minimum 40 character 2 line LCD display shall be provided to provide system messages in plain English format. Switches shall be provided for ALARM SILENCE, RESET, TROUBLE SILENCE, DRILL TEST, LAMP TEST, TAMPER SWITCH AND TRANSMITTER RESET. The control unit shall contain an integral keyboard capable of performing all programming functions of the system. All control panel/transceiver switches shall be within the locked cabinet, with a tamper switch that sends a tamper alarm when the cabinet is open. Above indicators and LCD display shall be plainly visible when the cabinet door is closed. Each initiating circuit shall be powered and supervised so that a signal on one zone does not prevent the receipt of signals from other zones. The transmission method shall provide for identification by zone of any alarm, supervisory, or trouble condition on the system. The control unit shall be capable of transmitting a minimum of 60 user defined zones. The number of zones to be transmitted and their identification shall be as shown on the drawings. Loss of power, including any or all batteries, shall not require the reloading of a program from any source. Upon restoration of power, startup will be immediate, automatic, and shall not require any manual operation. The loss of primary power or the sequence of applying primary or emergency power shall not affect the transmission of alarm, supervisory, or trouble signals. The fire alarm control panel for each facility's detection system shall be located in a pre-designated mechanical room. Each facility shall be divided into multiple zones. Specific functions such as duct detectors; range hoods, eyewash stations and air-handling units equipped with duct detectors shall be wired as individual zones. Provide two or more spare zones depending on facility size. Facilities over 465 square meters (5,000 square feet) shall have a minimum of 4 spare zones provided. Facilities over 1858 square meters (20,000 square feet) shall have a minimum of 6 spare zones provided. Fire Alarm panels shall be field expandable. It is recommended that systems be non-addressable (HEF systems have specific requirements, see HEF section for further information). Panels may be field programmable provided that this can be accomplished at the unit (panel) level, without the use of proprietary software, keys, the changing of electronic hardware, or use of any proprietary device (unless provided to the ANG at time of installation). Any software, device, password or other element used to program any component of the fire system shall be specified to become property of the Government, along with the installed program. All panels shall include input and output modules and terminations for each four-wire (Class A) supervised zone. All zones to be annunciated to the central

systems (two) (redundantly) for fire and trouble, on a zone-by-zone basis.

2.12 SYSTEM CAPACITY

The fire alarm control panel shall provide for two (2) expansion back planes, connections for up to 4 Class B, jumper selectable to two (2) Class A, conventional Initiating Device Circuits and four (4) Style Y, jumper selectable to two (2) Style Z, Notification Appliance Circuits. When more than two Style D or four Style B Initiating Device Circuits are used, they shall be provided through use of an expansion backplane and associated plug-in cards for ease of servicing. The cards may be removed without disconnecting any wiring. A minimum of two (2) programmable on-board relays shall be provided.

2.13 CIRCUIT CONNECTIONS

Circuit conductors entering or leaving the panel shall be connected to screw-type terminals with each terminal marked for identification. Cabinet shall be provided with ample gutter space to allow proper clearance between the cabinet and live parts of the panel equipment and to provide sufficient space for all external wiring entering the cabinet. Where more than one module is required to form a control unit, the interconnection between modules shall be supervised. Where devices contain an LED for alarm indication, the control panel shall support the lighting of any signaling line circuit.

2.14 PROGRAMMING

All required programming of the system shall be capable of being accomplished from an on-board keypad. In addition, an RS-232 port shall be provided and wired for remote programming via a PC or terminal. All software, interconnecting cables and instructions required for remote programming shall be provided to the user without additional cost under this contract. All software and programming information shall be stored in non-volatile memory and shall not be lost in the event of a total system power failure. Programming software shall allow "Control by Event" type programming wherein specific inputs may control specific outputs for either fire alarm or general (non-fire) control. The programming interface shall be menu driven and all entries shall be alphanumeric based on menu prompts. Means shall be provided to correct mis-entries without leaving the current menu. Remote programming software shall be Microsoft Windows compatible and shall allow programming to be entered and confirmed prior to downloading into the control unit. The software shall also allow the off-loading of current programmed information from the control unit to the remote programming device. Capability shall be provided to create, modify, store and print program data. The Contractor shall program the following: M-2 panel, the D-700 located at the Base Fire Station Building 290 and the D-700 in the Base Command Post Building 265.

2.15 ADDITIONAL FEATURES

In addition to those specified elsewhere, the Monaco M-2 Class A Non-Addressable fire alarm control panel/transceiver shall provide the following operational features:

a. Auxiliary Outputs - The control unit shall also provide an auxiliary alarm output and auxiliary power output.

b. Lamp Test - A lamp test switch shall be provided on the control

unit which will light all panel LEDs for test purposes.

c. Drill Test - A drill test switch shall be provided on the control panel which will activate all Notification Appliance Circuits. Operation of the drill test switch shall not result in an alarm transmission to the central supervising station or operation of any supplementary circuits such as AHU shutdown.

d. Transmitter Disconnect Circuit - The control panel shall include a circuit that automatically disconnects the radio transmitter in the event the transmitter stays in a transmit condition for a period of 30 seconds. A transmitter reset button shall also be provided which will reconnect the transmitter when operated. A transmitter disconnected LED shall be provided to indicate the transmitter has been automatically disconnected. A transmitter which has been automatically disconnected will be indicated during the next scheduled polling cycle by a communications failure at the central supervising station.

e. Walk Test - The control panel shall contain provisions for placing the system in a walk test mode. In this mode, activation of any initiating device shall activate the audible devices for a period of approximately 2 seconds. The walk test mode shall not initiate an alarm transmission to the central supervising or activate any supplementary devices.

f. Diagnostics - Built in diagnostics shall be provided for testing control panel and transceiver functions.

2.16 HISTORY LOG

The control panel shall contain the capability to store for display up to 10 events including time and date information. History events shall be stored in non-volatile memory. A means shall also be provided to clear all history entries from the control unit under password control.

2.17 SMOKE DETECTORS

All occupied and unoccupied spaces of all facilities shall be protected with an automatic detection systems with the exception of spaces protected by suppression systems. All detectors shall be of the heat type except in sleeping quarters and exit corridors where combination heat/smoke detectors and ducts, where in-duct detector units shall be used. Provide automatic heat detectors in storage and electrical /communication /mechanical areas as well as occupied spaces. For open office, systems furniture areas provide a heat/smoke detector at close proximity to each space exit door. For raised floor systems areas, provide smoke or combination heat/smoke detectors below the raised floor panels. Detectors shall be provided for all concealed spaces (such as above drop ceilings) IAW NFPA Guidance, and such detectors shall be identified and each shall have a remote LED, test/indicator visible from floor level. Use NFPA 72 for guidance.

Smoke (duct) detectors in return air plenums alone; do not meet this minimum level. When smoke detectors are required, the control panel shall support both ionization and photoelectric type. All smoke detectors shall consist of detector head and separate twist lock base. Detector bases shall accommodate either ionization or photoelectric type detector heads however, photoelectric heads shall be provided. All wiring shall connect to the detector base via screw type terminals. Each detector assembly shall contain 2 LED indicators, which will flash to indicate a detector

poll from the control unit and light steady to indicate an alarm. Where required, detector/base combinations shall include remote indicator or relay operation or internal audible signaling devices. Ionization detectors shall operate on the dual chamber principle with both a reference and sensing chamber. Photoelectric detectors shall operate on the light scattering principle. All detectors shall be compatible with the control unit (Monaco M-2) and support all required operational features of the control unit. Detectors shall be rated for 30' spacing on smooth ceilings.

2.18 HEAT DETECTORS

All occupied and unoccupied spaces of all facilities shall be protected with an automatic detection systems with the exception of spaces protected by suppression systems. Smoke (duct) detectors in return air plenums alone, do not meet this minimum level. When required, fixed temperature, combination fixed temperature and rate of rise types shall be rated as shown on the construction drawing. Heat detector assemblies shall consist of a detector head utilizing a dual thermistor sensing circuit and twist lock base (System Sensor part number 721-122-00). Detector bases shall provide screw terminals for wiring connections and will accommodate both types of detectors. Detectors will be rated for 50' spacing on smooth ceilings. All initiating devices shall be labled, to indicate it specific zone and to identify location within that zone as shown in the fire alarm floor plan drawing.

2.19 DUCT DETECTORS

Provide duct type smoke detectors, complete with fan shutdown relays (manual reset) for all air handling systems over 56.6 cubic meters per minute (2000 cfm). Provide detectors for both supply and return systems. Provide duct smoke detectors in accordance with NFPA 90A for HVAC systems. At all locations that a duct detector is installed, provide remote test switch (install at 2.1 meters (7 feet) above finish floor elevation) and LED indicator for maintenance and alarm identification. Any fire alarm activation shall shut all down HVAC systems and meet the requirements in NFPA 90A for HVAC systems. Duct detectors shall be photoelectric type and shall be mounted in a special housing fitted with duct sampling tubes where duct sizes exceed 2' in width. Detectors and associated circuitry shall be mounted in a housing exterior to the duct. Sampling tubes shall run the full width of the duct. Detectors shall be listed for air velocities between 500 and 4000 fpm. Duct detectors shall be powered from the fire alarm panel. Where AHU shutdown is required, the fire alarm panel, via a 24-volt DC control module, shall perform this function. Duct detectors located above 6' AFF or in difficult to access locations shall be furnished with remote test, alarm indicator and reset controls. Duct defector housings and sampling tubes shall be furnished and installed by HVAC Division 15. Duct smoke detectors shall be furnished, installed in housing and connected by HVAC Division 16. Coordinate with Division 15 of the specifications and locations on Division 15 HVAC, and As-Built Record Drawings

2.20 ROOF VENTS

UL listed smoke and heat vents shall be provided in roofs of buildings containing materials having high heat-release potential, such as warehouses, flammable liquid storage and handling facilities, and other "extra hazard" occupancies. NFPA 204 provides guidance.

2.21 FIRE DAMPERS

Provide fire dampers in accordance with NFPA 80, NFPA 90A and NFPA 90B. Fire dampers located in duct system shall be provided with access panels at both ceiling and in duct itself. Clearly identify locations and key to the posted operations instructions.

2.22 PUBLIC CORRIDORS

Public corridors must comply with NFPA 101. Corridors shall not be used as return air systems for air handling (supply, return or exhaust). Include magnetic door closures if doors are fire rated. Break areas, copy or fax office areas or other public gathering activity shall not be an integral part of any exit corridor. These functions must be fully provided in a dedicated room or area, sized to accommodate the area that is separated from the corridor by the appropriate fire rated separation. These functions shall not use the corridor as part of the system. Location of water coolers (recessed or semi recessed) in exit corridors is the only approved public use function.

2.23 AIR PLENUMS

The use of return air plenums (as opposed to return air duct systems) is strongly discouraged due to inherent problems with versatility and balancing of these systems. Plenums may however, be used as an integral part of an air handling system only if they conform to the requirements of NFPA 90A and NFPA 90B. Additionally, special justification for use of such systems shall be submitted for review and approval. Under no circumstances may combustible materials be located within the air plenum space. All electrical wiring passing through the space, including telephone and communication wiring, shall be approved for that type of environment or shall be in metal conduit. Insulation systems in the plenum environment shall be fully sealed from the air stream.

2.24 NOTIFICATION APPLIANCES

The system shall provide local audio and visual alarm throughout the facility interior and exterior. Notification appliances shall be located on every floor, in occupied and unoccupied spaces of the facility and consist of combination horn/strobe units. Horn/strobe units shall be surface mounted with matching red box. All connections shall be via screw terminals. Horns shall be rated at a minimum of 85 dBA at 10' and shall be switch programmable for multiple sound patterns. Horns shall be set to operate in the three tone temporal mode. Strobe units shall have separate screw terminal connections. Strobes shall have a clear high intensity optic lens with the word "FIRE" in either the vertical or horizontal position. Strobes shall utilize a xenon flash tube outputting white light at a minimum of 75 candelas and at a flash rate of 1 flash per second. Notification appliances shall be mounted at 80" AFF or 6" below suspended ceilings, whichever is lower.

Manual fire and evacuation alarm systems (pull stations) are to be provided at all facility exits regardless of other systems provided and shall provide both local audio and visual alarm as well as remote annunciation as outlined herein. Manual systems shall be provided at all exits (swing, roll back and roll up door type), along paths of egress, on every floor, in occupied and unoccupied spaces, in shops and storage spaces and in other locations where logical to incorporate. Provide manual pull stations in unobstructed locations. Do not provide for installation on the hinged side of doors except in the case of double doors. These systems may not be used

in lieu of automatic detection systems, but they are required to supplement certain suppression systems.

Manual pull stations shall be surface mounted at a height of 48" AFF. Where existing flush or semi-flush stations are to be replaced, existing mounting locations may be reused if under 54" AFF. Manual stations shall be cast metal, finished in red with raised letters in a contrasting color indicating operating instructions. Stations shall be single action type with key lock for test/reset. Stations shall be keyed the same as the control panel, and match the base standard key system for Monaco fire alarm panels. Stations requiring the breaking of glass or plastic rods or panels are not acceptable. Gravity or mercury switches are not acceptable.

Monitor modules shall be provided and connected to devices such as water flow switches, supervisory switches and detection devices as shown on the drawings. Monitor modules shall provide supervised initiating device circuits, which may be connected in either Class A or Class B configuration. Monitor modules shall be mountable to a standard electrical box and shall contain an LED to indicate polling and alarm conditions.

Control modules shall be provided and installed where shown on the drawings to provide supplementary fire alarm control. Control modules shall provide both dry contact and supervised output capability for Monaco M-2 circuits. Control modules shall mount to standard electrical boxes and shall contain an LED to indicate polling and active output. Where connected to powered devices, power will be provided from the fire alarm control system and shall be supervised.

2.25 ANTENNAS AND CABLES

Antennas,cable and fittings/connectors shall meet Monaco specifications. Building mounted antennas shall be omnidirectional with a driving point impedance of 50 ohms. All antennas shall be installed external to buildings and shall be located in accordance with manufacturers' recommendations. The antenna and antenna mounts shall be designed to withstand wind velocities of up to 100 miles per hour. Antenna mask shall be one (1) inch EMT or ridged conduit. Each fire alarm control panel/transceiver shall have its own antenna. Antennas shall be of non-corrosive materials and of strength suitable to withstand ice and wind loading conditions and shall be located well away from overhead power circuits. Coaxial cables shall be RF type (or equivalent) and shall include PL and BNC type fittings or connectors as appropriate. Contractor shall perform and provide documentation for Antenna Voltage Standing Wave Rate (VSWR) test.

2.26 LIGHTNING PROTECTION

All antennas shall be provided with coaxial lightning arresters (static discharge units) installed in suitable enclosures and grounded in accordance with NFPA 70, Article 810-21. Lightning arresters shall be located as close as practicable to the grounding location. The main ground conductor shall be shall be 6 AWG solid copper minimum. The grounding conductor for the antennas mask shall be 10 AWG solid copper or larger. All interior antenna coax cable shall be installed in ¾ inch conduit.

2.27 CONDUIT AND WIRING

All fire detection and alarm system wiring shall be run in minimum 1.9 cm (3/4 inch) EMT conduit and shall be clearly identified. All fire alarm system conduits in occupied spaces shall be recessed and not visible. All

system wiring shall be approved for fire alarm use and shall be installed in metallic conduit or raceway. All conduit penetrations through walls shall be sealed with appropriate fire resistant material. Conduit runs shall follow the building contours and shall be installed parallel or perpendicular to walls and ceilings. All conduit field bends shall be made by benders specifically designed for the purpose. All junction boxes shall be sized to accommodate the number of conductors installed in accordance with the NEC. Conduit wire fill shall not exceed 40 percent. Conductors for any other system/circuits shall not be installed with fire alarm conductors in any conduit, raceway or cable. All detection and alarm wire shall be installed in separate conduits. Each circuits outgoing and return conductors exiting and returning to the control unit, respectively are to be routed separately as required NFPA 72. The minimum separation of outgoing and return conduits shall be .3 meters (1foot) vertically and 1.2 meters (4 feet) horizontally. Conduit shall be EMT. Exception would be those locations deemed unsuitable for EMT conduit. In such cases, use Rigid or PVC type conduit. Minimum conduit size shall be 1.9 cm (3/4 inch) diameter trade size. Alarm and supervisory wiring shall be in separate conduits. Use of FMC or Liquid Tight is not permitted except in areas subject to extreme vibration. In those rare instances, no more than a six-foot length may be specified. All conduit runs and junction boxes shall be identified through color coding and labeling. . All penetrations of fire rated walls, partitions, shafts, floors and ceilings shall be fully detailed and fire-stopped by an approved/listed method.

2.28 Supervision

Fire alarm system wiring shall be installed Monaco M-2 Class A Non-Addressable system for Initiating Device Circuits and for Notification Appliance Circuits in accordance with NFPA 72.

Existing Systems. Note: Where existing fire alarm systems are to be replaced, the existing system shall remain in operation to provide alarm indications and transmission until the switch over can be accomplished within an 8 hour period. All work shall be coordinated with the Base Fire Department to insure that they are aware of the status of both the existing and the new fire alarm system during construction.

2.29 Work Hours

All work shall be accomplished between the hours of 7:00 AM and 5:00 PM excluding weekends and designated holidays, unless written permission has been obtained from the Contracting Officer's Representative (COR) 72 hours in advance. The facility is expected to be occupied during installation operations and care shall be exercised to protect occupants, equipment and furnishings from injury or damage during installation. All damage to existing facilities shall be promptly repaired to original condition at no expense to the Government. Work outside of regular work hours shall require approval by the COR. Work shall be scheduled to minimize interference with normal facility operations.

2.30 As-Built Drawings

The contractor shall maintain a set of shop drawings as specified in Section 01702. As-built drawings shall show details of installation including conduit/cable locations, device locations, wire counts, equipment locations and such other details required for a complete record of the construction. Upon completion of the construction, the on site, as-built drawings shall be used to produce Fire Alarm System Record Drawings. Record

Drawings shall be made on Architects base building floor plans, formally produced in a AUTOCAD Release 2000i LT format for delivery to the Government as part of the required documentation package. The Record Drawing shall include:

a. All devices and equipment

b. Wire/Conduit runs, J-boxes.

c. System Operational Matrix.

d. System Riser Diagram.

e. Schedule of all equipment by Manufacturers part number.

f. Device address point list, (may be attached sheets) coordinated with building room numbers shown as shown on Record Drawings.

g. All Record Drawing sheets shall be clearly marked "As-Built", dated and signed by the Certified Technician assigned to the fire alarm system installation.

h. All record drawing sheets shall be reproduced in both full size and half-size for inclusion in six (6) copies of O&M Manuals.

PART 3 EXECUTION

3.1 INSTALLATION

The contractor shall provide all equipment, labor, materials, transportation and documentation required herein and on the drawings to install a complete and operable system to include all required testing and test documents. The installation shall be provided by skilled craftsman that meet the section of "Qualifications of the Installer" trained in the installation of these types of systems. The installing contractor shall be UL listed as a fire alarm installer under category UUJS of the UL Fire Protection Equipment Directory.Qualifications of the installers and supervisor shall be provided to the COR, upon request.

3.2 TESTING

Upon completion of the fire alarm system installation the contractor shall test the entire system for proper operation. All defects shall be corrected and retested. Upon completion of contractor testing, the contractor shall provide copies of the completed NFPA 72 Fire Alarm System "Record of Completion" and "Inspection and Testing" forms to the COR. The contractor shall notify the COR and Base Fire Department ten (10) days in advance of the final inspection, and provide a Monaco Factory Technician to be present at the Contractor's expense. All equipment, devices and materials required for final inspection and test of the system shall be provided by the contractor. Any system failure during final testing shall be corrected and the complete fire alarm system retested, during the inspection if this can be accomplished within a reasonable time. Otherwise, the test shall be rescheduled allowing for the Monaco Factory Technician to be present during the rescheduled test, at the Contractor's expense. Records of the test signed off by Certified Installing Technician and the Monaco Factory Representative shall be included in the O&M Manual. Substantiate battery capacity, supervisory, and alarm power requirements for Antenna/Coax Voltage Standing Wave Ratio (VSWR).

3.3 DRAWINGS, MANUALS, TOOLS AND SPARE PARTS

Upon completion of installation, and prior to final inspection, the contractor shall furnish "as-built" drawings. In addition, the contractor shall furnish O&M manuals, including wiring diagrams, as specified in Section 01701. Any special tools necessary for the maintenance of the equipment shall be furnished, as well as, one spare set of fuses of each type and size required. As soon as practicable after approval of the list of equipment, the Contractor shall furnish copies of spare parts data for each different item of equipment listed. The data shall include a complete list of parts and supplies with current unit prices.

3.4 SPARE EQUIPMENT

In addition to the above, the Contractor shall provide the following materials and supplies:

1. Two (2) spare devices of each type installed.

2. One (1) spare fuses of each type utilized.

3. One (1) spare coaxial lightning arrester cartridge.

4. Four (4) keys for locks of control panels or cabinets.

5. Two (2) zone expansion cards.

-- End of Section --